REMARKS

Claims 4, 5-9, 11, 12, and 18 have been amended. Claims 1-3 have been canceled without prejudice to their underlying subject matter, which has been incorporated into claim 4. Claims 4-18 are pending in the present application.

Claims 5 and 10 stand rejected under 35 U.S.C. § 112 as being indefinite. Applicants respectfully traverse this rejection. Claim 5 has been amended to recite "providing signals to the pixels of N lines in a selection period of n times which are less number than N," indicating that the value of "N lines" is not necessarily the same value as "n times." Applicants respectfully request that the 35 U.S.C. § 112 rejection of claim 5 be withdrawn.

With respect to the rejection of claim 10, please note that claim 10 is readable on embodiment 4, shown in Fig. 12. As is apparent from Fig. 12, a pixel block 160 is connected to a liquid crystal drive voltage line 62, and a pixel block which is below the pixel block 160 is connected to a liquid crystal drive voltage line 63. Claim 10 covers such a connection relation. This makes it possible to control pixels at high speed as compared with the embodiment shown in Fig. 1, in which two pixel blocks are connected to one liquid crystal drive voltage line. In light of this clarification, Applicants respectfully request that the 35 U.S.C. § 112 rejection of claim 10 be withdrawn.

Claims 4 and 5 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,175,355 B1 (Reddy) in view of U.S. Patent No. 5,801,841 (Suzuki). Applicants respectfully traverse this rejection.

According to amended claim 4, a pixel matrix is divided into a plurality of pixel blocks, and, during a predetermined period of time, pixels of a first pixel block of the divided pixel blocks are allocated one of the n gradations and are given one signal and pixels of a second pixel block, adjacent to the first pixel block, of the divided pixel blocks are allocated another of the n gradations and are given another signal. The present invention renders it possible to input the pixel signal to the liquid crystal display apparatus

in a shorter time, thereby allowing a high definition display to be fulfilled or a high-speed moving image (picture) to be displayed. (See Specification, page 4, paragraph [0009]).

By contrast, Reddy discloses an image display technique on a display panel divided into a plurality of blocks which is capable of switching an "on" condition, representing white, and an "off" condition, representing black, at high speed. Suzuki discloses an image signal coding apparatus in which pixels are allocated gradations, the number of which is less than that of pixels constituting a pixel block.

Neither Reddy nor Suzuki teaches or suggests the invention mentioned above. In addition, the invention cannot be obtained no matter how the references are combined. Therefore, the advantageous effects of claim 4 of the present invention cannot be obtained from the references.

Claim 5 contains limitations similar limitations to claim 4 and also recites "providing signals to the pixels of N lines in a selection period of n times which are fewer in number than N." Reddy and Suzuki, whether taken alone or in combination, do not teach or suggest this limitation. Therefore, the advantageous effects of claim 5 cannot be obtained from of the references. Applicants respectfully request that the 35 U.S.C. § 103(a) rejection of claims 4 and 5 be withdrawn.

Claims 6, 13, and 15-17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Reddy in view of Suzuki and further in view of U.S. Patent No. 5,977,940 (Akiyama). Applicants respectfully traverse this rejection.

Claim 6 defines structural features in addition to those of claims 4 and 5. Specifically, claim 6 defines at least the XY calculating circuit, the signal comparator, and the switch, which are not taught or suggested by Reddy, Suzuki, and Akiyama. Therefore, it is apparent that claim 6, and claims 13 and 15-17 depending from claim 6 are also patentable over the references. Applicants respectfully request that the 35 U.S.C. § 103(a) rejection of claims 6, 13, and 15-17 be withdrawn.

Claims 12, 14, and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Reddy in view of Suzuki in view of Akiyama, and further in view of U.S. Patent No. 5,485,293 (Robinder). Applicants respectfully traverse this rejection.

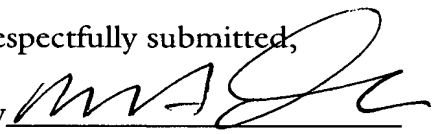
Like claim 6, claim 12 defines structural features in addition to those of claims 4 and 5, such as the XY calculating circuit, the signal comparator, and the switch, which are not taught or suggested by any of the references. Therefore it is apparent that claim 12 and dependent claim 14 are patentable over the references. Claim 18 depends from claim 6, which is also patentable over the references. Applicants respectfully request that the 35 U.S.C. § 103(a) rejection of claims 12, 14, and 18 be withdrawn.

Claims 7-9 and 11 stand objected to as being dependent upon a rejected base claim. Claims 7-9 and 11 depend from claims 4 and 6, which, as established above, are patentable over all of the references. Applicants respectfully request that this objection be withdrawn.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

Dated: March 3, 2004

Respectfully submitted,

By 

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